

We claim:

1. A process of imparting fire retardant properties to a cellulosic material comprising coating a cellulosic material with sodium silicate by contacting a sodium silicate solution with the material to be coated, and dehydrating the coating.
2. The process of claim 1 wherein the contacting step is selected from the group consisting of dipping and soaking.
3. The process of claim 1 wherein the contacting step is performed at subatmospheric pressure.
4. The process of claim 1 wherein the contacting step is performed at superatmospheric pressure.
5. The process of claim 1 further comprising the steps of depositing a coating of a silicon oxide glassy film on the sodium silicate coated material.
6. The process of claim 5 where sufficient depositing is effected so as to impart waterproofing properties to the sodium silicate coated material.
7. The process of claim 5 wherein sufficient depositing is effected so as to impart fire resistance to the sodium silicate coated material.
8. The product produced by the process of claim 1.
9. The product produced by the process of claim 6.
10. The product produced by the process of claim 7.
11. The process of claim 1 wherein the sodium silicate solution has a concentration of 0.04g-400g of sodium silicate per kilogram of water.
12. The process of claim 11 wherein the concentration is 200-300 grams sodium silicate per kilogram of water.

13. The process of claim 5 wherein the coating is a mono-molecular layer of silicon monoxide.

14. The process of claim 5 wherein the coating is achieved by vacuum deposition.